

# Data for Indian Economic Development Workshop

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Bureau of Labor Statistics

Local Area Unemployment Statistics program

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# Background

- The Local Area Unemployment Statistics (LAUS) program of the Bureau of Labor Statistics (BLS)
  - ▶ Federal-state cooperative effort
  - ▶ Produces monthly estimates of civilian labor force and unemployment for subnational areas



# Geography

- LAUS geography—roughly 7,500 unique areas
  - ▶ States
  - ▶ Office of Management and Budget federal statistical areas (e.g., metro and micro areas)
  - ▶ All counties and equivalents
  - ▶ Cities with populations of 25,000 or more
  - ▶ All minor civil divisions in New England



# Data Measures

- Four data measures published for each area
  - ▶ Civilian labor force
    - Employed persons
    - Unemployed persons
      - Unemployment rate
- Employed and unemployed persons are independently estimated; civilian labor force and unemployment rate are derived

# Data Concepts

- Concepts are based on activity during a reference week (12<sup>th</sup> day of the month)
  - ▶ Employed people are those who did any work at all for pay or profit, including those who had a job from which they were temporarily absent
  - ▶ Unemployed people are those who did not have a job, had actively looked for work in the prior four weeks, and are currently available for work



# Methodologies

- LAUS uses a hierarchy of methodologies, based on availability of inputs
  - ▶ U.S. data come from a survey of 60,000 households
  - ▶ State data are model-based
  - ▶ County data use a building block approach
  - ▶ Cities are disaggregated from counties using population and unemployment insurance claims data

# Input Data Sources

- LAUS input data sources:
  - ▶ Current Population Survey
  - ▶ Current Employment Statistics survey and Quarterly Census of Employment and Wages
  - ▶ Unemployment insurance systems (state, federal, and Railroad Retirement Board)
  - ▶ Decennial Census and Population Estimates Program
  - ▶ American Community Survey

# American Community Survey

- American Community Survey, or ACS
  - ▶ Census Bureau survey of 3.5 million households
  - ▶ 1-year estimates for areas with 65,000 or more population; 5-year estimates for all areas
  - ▶ Provides on a more frequent basis data that had been available as a once-per-decade snapshot from the decennial census long-form surveys
    - Includes employment status questions that reflect the activity concepts of the Current Population Survey

# ACS Share Ratios

$$R01 = \frac{\text{ACS Emp}_{City} \text{ ACS 5-Year} \times \frac{\text{Census Pop}_{City} \text{ July-1 PEP}}{\text{ACS Pop}_{City} \text{ ACS 5-Year}}}{\text{ACS Emp}_{County} \text{ ACS 5-Year} \times \frac{\text{Census Pop}_{County} \text{ July-1 PEP}}{\text{ACS Pop}_{County} \text{ ACS 5-Year}}}$$

$$\text{Emp share} = \frac{\text{ACS Emp}_{ResCity} \text{ ACS 5-Year}}{\text{ACS Emp}_{County} \text{ ACS 5-Year}}$$

$$\text{Unemp share} = \frac{\text{ACS Unemp}_{ResCi} \text{ ACS 5-Year}}{\text{ACS Unemp}_{County} \text{ ACS 5-Year}}$$



# ACS Share Ratios

American Indian Area / Alaska Native Area / Hawaiian Home Land Name	County Name	ACS Employed		ACS Unemployed		ACS Share Ratio	
		Res part	County	Res part	County	Employed	Unemployed
Crow Reservation and Off- Reservation Trust Land, MT	Big Horn County, MT	2,212	4,788	984	1,262	0.46199000	0.7797100
	Treasure County, MT	0	353	0	11	0.00000000	0.0000000
	Yellowstone County, MT *	197	77,174	8	4,340	0.00255300	0.0018400
Flathead Reservation, MT	Flathead County, MT	4	42,647	0	4,026	0.00009400	0.0000000
	Lake County, MT	10,040	11,331	1,868	1,983	0.88606500	0.9420100
	Missoula County, MT *	351	57,234	36	6,095	0.00613300	0.0059100
	Sanders County, MT	773	4,293	66	434	0.18006000	0.1521000



# Disadvantages

- No current information specific to the reservation areas themselves is used
- The ACS data from which the shares are calculated pertain to a remote, 5-year period
  - ▶ Conditions may have varied considerably *within* the 5-year base period
  - ▶ Average shares over the 5-year base period may not be representative of the current relationship

# Disadvantages

- Little independent variation from the county out of which the reservation area is shared
- The underlying ACS data are survey-based estimates, subject to sampling error
  - ▶ This can be large, particularly for very small reservation areas

# Advantages

- Data can be generated on a current, monthly basis
- Reflect the official concepts of employment and unemployment that come from the Current Population Survey
- Consistent with the official county-level estimates published by LAUS



# Montana Reservations

- In March 2015, Montana requested BLS's assistance to produce estimates for its seven reservation areas
- BLS provided share ratios calculated from the 5-year ACS dataset for 2009–13 and advised them on adding the areas into the LAUS production database as state-specifics



# Montana Reservations

American Indian Area / Alaska Native Area / Hawaiian Home Land Name	County Name	ACS Employed		ACS Unemployed		ACS Share Ratio	
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Crow Reservation and Off- Reservation Trust Land, MT	Big Horn County, MT	2,212	4,788	984	1,262	0.46199000	0.7797100
	Treasure County, MT	0	353	0	11	0.00000000	0.0000000
	<del>Yellowstone County, MT</del>	197	<del>77,174</del>	8	<del>4,340</del>	<del>0.00255300</del>	<del>0.0018400</del>
	Balance of Yellowstone	197	22,691	8	1,318	0.00868200	0.0060700
Flathead Reservation, MT	Flathead County, MT	4	42,647	0	4,026	0.00009400	0.0000000
	Lake County, MT	10,040	11,331	1,868	1,983	0.88606500	0.9420100
	<del>Missoula County, MT</del>	351	<del>57,234</del>	36	<del>6,095</del>	<del>0.00613300</del>	<del>0.0059100</del>
	Balance of Missoula	351	21,167	36	2,290	0.01658200	0.0157200
	Sanders County, MT	773	4,293	66	434	0.18006000	0.1521000



# <http://lmi.mt.gov/>

## CURRENT UNEMPLOYMENT RATE

June 2017 - Seasonally Adjusted



**3.9%**

**4.4%**

Over the Month Change

0.0%

**+0.1%**

## RESERVATION UNEMPLOYMENT

June 2017 - Not-Seasonally Adjusted

	<b>BLACKFEET</b>	<b>12.0%</b>	<b>+1.6%</b>
	<b>CROW</b>	<b>19.4%</b>	<b>+1.1%</b>
	<b>FLATHEAD</b>	<b>4.3%</b>	<b>+0.4%</b>
	<b>FT. BELKNAP</b>	<b>9.0%</b>	<b>+1.2%</b>
	<b>FT. PECK</b>	<b>6.4%</b>	<b>+0.9%</b>
	<b>N. CHEYENNE</b>	<b>13.6%</b>	<b>+1.5%</b>
	<b>ROCKY BOY'S</b>	<b>11.8%</b>	<b>+2.1%</b>

Source: Local Area Unemployment Statistics (LAUS) Program



# All Reservation Areas

- In April 2017, BLS ran data unofficially from January 2010 through December 2016 for all 692 reservation areas included in the 5-year ACS dataset for 2009–13
- What would be needed to get data into production for all reservations?

# National Demographic Data

- National data for the AIAN population are available from the Current Population Survey (CPS) on an annual-average basis
  - ▶ Labor force characteristics by race and ethnicity
  - ▶ Most recently published for 2015 at <https://www.bls.gov/opub/reports/race-and-ethnicity/2015/home.htm>
- 1-year estimates are available from the ACS

# National Demographic Data

Measure (levels in thousands)	2013			2014			2015		
	CPS	ACS	diff.	CPS	ACS	diff.	CPS	ACS	diff.
Population 16+	2,554	1,891	663	2,633	1,950	683	2,844	1,965	879
Civilian labor force	1,512	1,089	423	1,602	1,121	481	1,724	1,138	586
Participation rate	59.2	57.6	2.0	60.9	57.5	3.0	60.6	57.9	3.0
Employed	1,319	928	391	1,421	973	448	1,553	1,002	551
Employment-population ratio	51.6	49.1	3.0	54.0	49.9	4.0	54.6	51.0	4.0
Unemployed	193	161	32	181	149	32	171	136	35
Unemployment rate	12.8	14.8	-2.0	11.3	13.3	-2.0	9.9	12.0	-2.0

- CPS-based AIAN population level has been considerably higher than the ACS-based level
  - ▶ Due to population controlling differences?

# Contact Information

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